

Formulation For Ink-Jet

One-Day Training Workshops:

Ink-Jet Formulation Fundamentals

25th June 2014, The Heath, Runcorn, UK

Intermediate Ink-Jet Formulation

25th. September 2014,
The Heath, Runcorn, UK



Who Should Attend?

- Scientists and technicians seeking an introduction to ink-jet formulation and the basics of digital ink-jet printing
- Scientific and technical personnel involved in the ink-jet supply chain (e.g. raw materials producers, consumables suppliers, printer manufacturers) who would value a better understanding of ink formulation
- Commercial personnel in all parts of the ink-jet supply chain who need a more thorough grounding in ink formulation

Why Should You Attend?

By attending you will :

- Learn about the principles of ink-jet printing
- Better understand the science that underpins stable ink formulation
- Receive an introduction to the main print-head technologies and printer architectures
- Learn about the different types of ink-jet colorants, their key properties and performance in formulations
- Understand the function and performance of the main additives used in aqueous ink-jet formulations
- Know how inks are tested and prints are evaluated
- Gain an overview of newer applications for ink-jet technology

About The Workshops

iFormulate Ltd (www.iformulate.biz) is organising and promoting these two workshops and has teamed up with industry specialists to design and deliver two completely new and complementary workshops.

Formulation For Ink-Jet: Workshop Synopses

Ink-Jet Formulation Fundamentals:

25th June 2014, Runcorn, UK

1. Science Basics for Formulation

- Particles, colloids and dispersions and how to stabilise them
- Adhesion science basics

2. Ink-jet Technology Basics

- Print head technologies and architectures
- Piezo and thermal printheads
- Continuous & drop-on-demand printing
- Print head manufacturers

3. Colours for Ink-jet

- Dyes and pigments – advantages and disadvantages
- Key colorant properties - solubility, pH sensitivity, hue, light fastness
- Pigment formulation properties: milling or self-dispersing, particle size, stability

4. Formulation Properties and Ingredients

- Materials used in inks and their functions: wetting, surface tension, humectancy etc.
- Polymers, surfactants, buffers
- Performance in the ink, during printing and on the substrate

5. Ink Testing and Print Evaluation

- Ink and print performance criteria - Ink stability, open time, clogging
- Reflected optical density, print quality and fastness properties.

6. Further Uses and Formulation Considerations

- Printed electronics
- Textile printing
- 3D printing

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1. Optimising Ink-Jet Formulations

- Use of specific solvents and effect on printhead compatibility
- Effect of solvents on print properties such as penetration, drying, bleed
- Effect of polymers on jetting speed, effect of surfactants on nozzle plate wetting

2. Ink Interactions with Printheads and Substrates

- Advanced topics: kagation, purity considerations, latency
- Specific ink-media interactions and how to control them through formulation
- Gloss, use of fixing agents

3. Solvent-Based Ink-Jet Formulations

- Print head technologies for solvent based inks
- Applications for solvent inks
- Formulation considerations: stabilisation, jetting and print properties

4. Ink-Jet for Digital Textile Printing

- Textile substrates and key features
- Colorant types for textiles: disperse dyes, reactive dyes, acid dyes, pigments
- Formulation considerations for textile printing – ingredient choice, application and fastness properties

Pricing and Registration

Single workshop: £399 + VAT per person

Both workshops: £749 + VAT per person

Discounts for Early Registration: Discounts per person of £50+VAT for single workshops and £100+VAT for both workshops will be applied to registrations received by 28th February 2014. To register simply e-mail full contact details to info@iformulate.biz stating whether you wish to pay via invoice or credit card/PayPal. For invoices, please provide full billing details and for credit card/PayPal please note that a surcharge is made to recover PayPal fees.

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